QA/QC Manual

FOR THE

SOCIOECONOMIC COMPONENT OF THE BANGLADESH FOREST INVENTORY

Quality assurance and quality control for the socio-economic component of the Bangladesh Forest Inventory

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Contents

LIST OF ACRONYMS

Acronyms	Description
BFD	Bangladesh Forest Department
BFI	Bangladesh Forest Inventory
FE	Field Enumerator
HHs	Households
IP	Indigenous people
MQO	Measurement quality objectives
QA/QC	Quality assurance/Quality control
TL	Team Leader
USDA	United States Department of Agriculture

1 INTRODUCTION

Quality assurance (QA) encompasses all activities performed to ensure that the field data achieve the desired quality (USDA 2012). It is also defined as any method or procedure for collecting, processing or analyzing survey data that is aimed at maintaining or enhancing their reliability or validity (Canada 1998). Quality control (QC) is a system of routine of technical activities to measure and control the quality of the inventory to maintain data quality within an acceptable range. It ensures the data integrity, correctness and completeness, identifies and addresses errors and omissions, and documents and archives inventory material and record all QC activities.

Quality assurance and quality control constitute an integral part of socioeconomic survey in the Bangladesh Forest Inventory to fulfill the objectives related to socioeconomic benefits from tree and forest resources. QA/QC activities include a planned system of review procedures conducted both by BFI personnel and by those not directly involved in the BFI development process (external review). The review provides valuable feedback for the socioeconomic survey. Major elements of QA/QC are illustrated in Figure 1. QA/QC plan is prepared in order to provide a framework for each activity to be completed.

1.1 PURPOSE AND SCOPE OF THIS MANUAL

This report provides information about the:

- Organizational structure, describing the roles and responsibilities for QA/QC activities (chapter 2); and
- General socioeconomic survey QC/QA procedures, describing the QC/QA routines checks that will be implemented across all phases of socioeconomic survey (chapter 3).

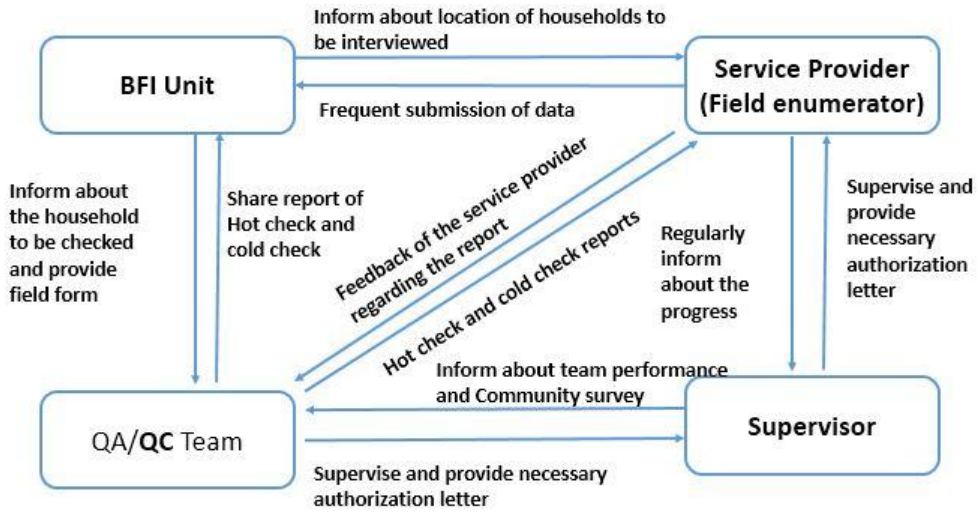


Figure 1: Organizational structure of quality assurance and quality control process of socioeconomic survey of the Bangladesh Forest Inventory

1.2 THE QUALITY OF THE DATA

Improvement of the quality of the data can be done at different stages of the socioeconomic survey: (1) before field work, (2) during field work (including hot checks & cold checks) and (3) after field work.

Careful thought and adequate time and attention are needed to minimize the biases and to ensure that the data, results and conclusions can be trusted. Some key aspects for this are shown below.

- Taking care in selecting enumerators with integrity, interpersonal skills and training them carefully.
- Understanding how the local social, cultural and political context may influence peoples' willingness to share the information sought.
- Spending time in study sites and participating in interviews to check enumerator performance and consistency, and also to get a feel for the reality.
- Triangulating data from various sources.
- Creating and implementing standard procedures for data quality checks while in the field (Angelsen, Larsen et al. 2011) The goal of the QA is to ensure that data attained meets the minimum specified standards. Data collected for QA purposes can also provide the feedback that is necessary to develop realistic measurement quality objectives (MQOs), revise data collection methods to reduce errors, improve training, and aid in the interpretation of results. The main criteria used to interpret the level of data quality are (Michael. E. Schomaker, Stanley. J. Zarnoch et al. 2007) :

1. Precision—the ability of a method to reproduce the same value

2. Accuracy—the ability of a method to yield the "true" value

3. Completeness—the amount of valid, usable data produced by a method

4. Comparability—the ability to combine data collected by different methods, in different locations, and by different data collectors.

1.3 MEASUREMENT QUALITY OBJECTIVES

The effectiveness of the QA will contribute to prevent data quality problems, assessment, appraisal, and correction. Each variable has Measurement Quality Objectives (MQOs) composed of 2 parts: (1) a tolerance, and a compliance standard. First is the maximum measurement error accepted, expressed in percentage on the real value, and second is the measurement of all variables stated in the questionnaire expressed in percentage on the number of measured variables.

E.g. For variable "average monthly income of the HH"

1. Tolerance = ±20%

In this case, for example, if enumerator found that one particular HH average monthly income was 10,000 BDT the tolerance will be BDT 2000 (which is 20% of 10,000) and all value bigger than BDT 12,000 or smaller than BDT 8,000 have to be considered as errors.

2. Compliance standard = 100% for all the variables

There is no scope to skipping of the variables in the questionnaire otherwise stated. The compliance standard is 100% for the remaining variables.

1.4 CORRECTION

Correction is modification of training, field protocols, and/or the QA/QC procedure to improve data quality. The need for correction and the effect of previous corrections are most objectively evaluated through analysis of hot check and cold check data. Hot checks and training feedback make it possible to implement corrective actions sooner. Any modification to the methodology is done with extreme caution, because of its potential effect on trend analysis. The need for corrective action decreases over time as the numbers of experienced field team personnel increase.

2 ORGANIZATIONAL STRUCTURE IN THE BFI

2.1 THE BFI UNIT

The BFI unit is responsible for conducting socioeconomic monitoring and other steps including coordination of and communication with the national institutions, dissemination of information through the national information system and reporting (Rahman and Henry 2016). The BFI unit should provide field report checks to ensure timely completion of field work, quality data collection and homogeneity among field teams. The BFI team controls and coordinates the data collection process, the transfer of field forms, and the validation of field forms in preparation for data entry. Figure 2 presents organizational structure of the socioeconomic survey.

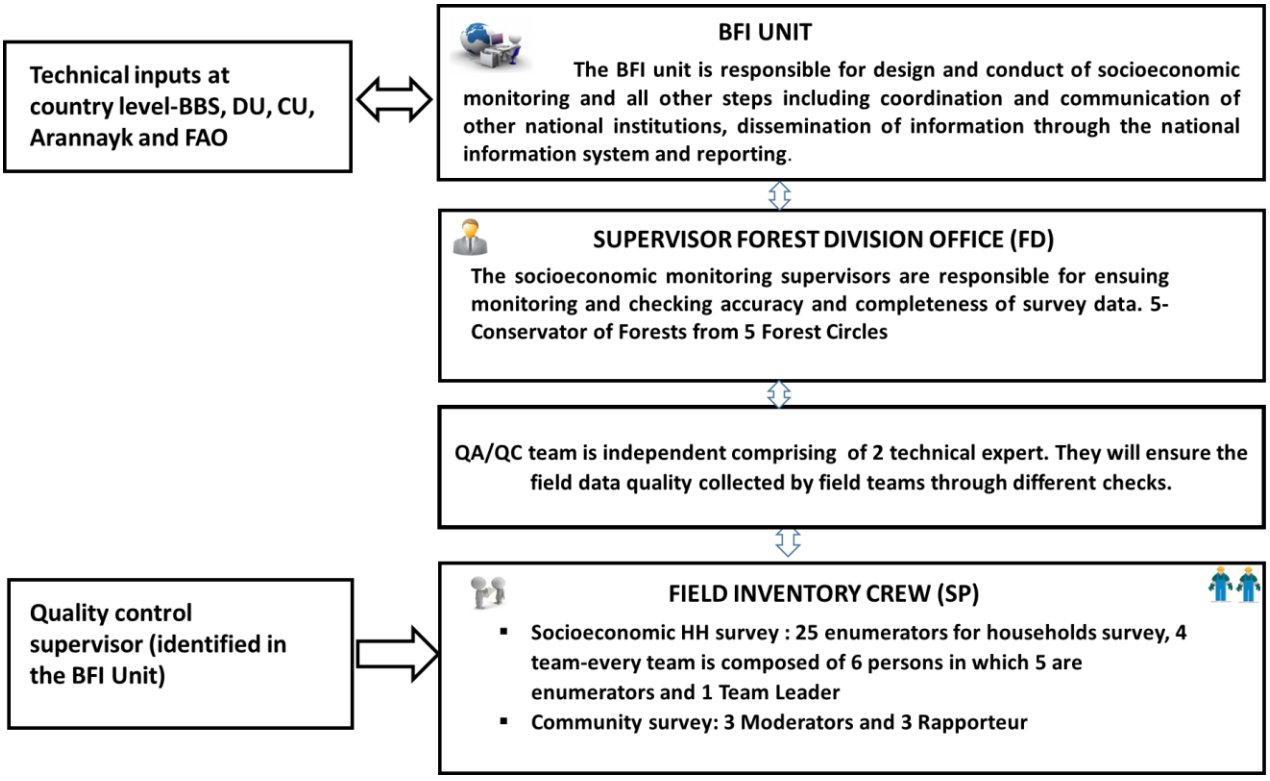


Figure 2: Organizational structure of the socio-economic survey of Bangladesh Forest Inventory

2.2.THE SUPERVISORS

Field administration of the Bangladesh Forest Department is divided into nine forest circles headed by a Conservator of Forests (BFD 2016). Each of them except Conservator of Forests, Wildlife and Nature Conservation Circle will serve as a supervisor for the socioeconomic survey as with biophysical survey. Supervisors will be responsible for ensuring the execution and quality data collection in this survey. Supervisor will provide support and coordinate with all field teams' activities and QA/QC field activities. The supervisor should provide immediate response and support to field teams if an emergency arises. Supervisor will convene meeting with field teams and QA/QC teams to remove any errors that come across during his visit.

2.3 THE FIELD TEAM (SERVICE PROVIDER)

A Service Provider (SP) will be hired through tender. SP will recruit field team for socioeconomic data collection. There will be five teams. Each team will consist of five members: The Team Leader (TL), and four Field Enumerators (FE). The field team will be accompanied by local people as per as possible and IP member during the survey in the Hill and Sal zones. The field team members will be from statistics, forestry and social sciences graduate. Special attention will be given to ensure the gender balance (1:1) during selection of field enumerator (FE). The SP will be responsible for collecting HH and community survey data from the selected unions as per survey design as well as submitting the filled in household and community survey data (paper based to the BFI unit every week or according to the agreed activities with definite time frame. Digital based data to be sent to the BFI unit within couples of days for quality checks.

2.4 THE QA/QC TEAM

Five QA and QC teams are formed under the BFI socioeconomic unit which will contain representatives from Bangladesh Bureau of Statistics (BBS), Forest Department (FD), Dhaka University (DU), Chittagong University (CU), Khulna University, Arannayk Foundation (AF) and Food and Agriculture organization of United Nations (FAO). The teams consist of 2 members and they will check the data collection in the field during and after the survey to ensure quality are collected. The responsibilities of QA/QC include spot visits during the data collection, checking coding while filling in the paper based field form as well as entering data in the tablet. (Costello and Henry 2016).

The QA/QC team will ensure that the technical quality of socioeconomic data collection adhere to this manual. The QA/QC team is responsible for **hot check of 3% HHs and cold check of 2% HHs of the total HHs to be surveyed.** The QA/QC team will go through the observed shortcomings and errors of data collection with the field teams in the feedback session. Differences in collected data between QA/QC team and field teams are to be discussed and unclear issues should be solved.

2.5 TECHNICAL SUPPORT AND SUPERVISION OF THE OVERALL QA/QC PROCEDURE

The BFI unit in BFD is the unit in charge of providing the technical support and the overall supervision of the QA/QC procedure as well as the BFI process. The BFI unit with the technical support from FAO and BBS will provide the technical support and the supervision of the QA/QC procedure.

3 GENERAL SOCIOECONOMIC SURVEY QC PROCEDURES

3.1 BEFORE THE FIELD WORK

The pre-field preparation is crucial to minimize any source of errors and ensures the teams receive the proper information and necessary logistic support to fully implement their duties within the limited time available. To this end:

- Contact the supervisor and the BFI unit to receive any necessary information and authorization.
- Check the location of the household from the office using available maps
- Enquire about the location of the local BFD office and the mode of transport to reach there.
- Receive printed Field forms from the office and carry them to field following the checklist,
- Collect contact numbers of all members particularly working in the same zone, contact local forest staff of the decentralized offices, concerned Divisional Forest Officers.

3.2 DATABASE VALIDATION RULES

The socioeconomic field data are recorded using both paper and mobile application “Open Foris Collect Mobile”. In the paper form, the information is recorded as “Code” or “Value”. On the other hand, mobile application allows validation rules which restrict entry of erroneous data and assist correctness, consistency and accuracy data collected. Validation rules defined for the BFI includes:

- **Data type validation:** verifies that the data entered is consistent with the expected primitive data type defined for that specific field (e.g.: it is not possible to enter characters in numeric fields, such as gender).
- **Range checks and constraint validation**: verifies that the entered value falls within an accepted value range. E.g.: a warning is provided when household numbers are bigger than 20.
- **Checks for missing record:** QA/QC team review questionnaire conducted by field enumerators and flags missing data, miscoded data values appearing to be outliers and other issues during the hot checks (section 3.3)
- **Cross checks:** check whether the data entered in different fields is consistent with a set of underlying assumptions. E.g. unit of tree and forest product collection.

3.3 FIELD CHECKS

3.3.1 HOT CHECKS

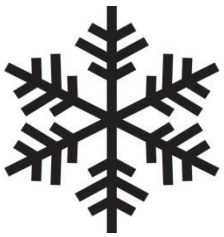
Objective: To assess the precision of data collection through interview of a field enumerator, and provide immediate feedback that will improve the precision of future field data collection.

Definition: A QA/QC team accompanies a field team to a household. The QA/QC team observes how interview taking place, paying attention to record keeping, communication, and efficiencies.

In brief, the QA/QC team visits during the data collection, checking coding while filling in the paper based field form as well as entering data in the tablet. They will also record separately what the interviewee mentioned and check with the field enumerator paper and tablet form. The hot check list is presented at Appendix 1.

At least 3% of the households' interviews are hot checked.

3.3.2 COLD CHECKS



Objective: To assess the precision of the data collection of a field enumerator by re-interviewing of a household after 1-2- weeks.

Definition: A QA/QC team interviews a household which has previously been interviewed by a field enumerator, compare the results and produce a scoring report (see following section) which will be submitted to the field enumerator and to the BFI unit for discussion. The households to be cold-checked is determined by the BFI unit. It is important that the field teams don't know which households will be cold-checked by the QA/QC team, so that to no alter their field work performance. The cold-check has to take place within 1-2 weeks from the first household interview.

Which variables the QC/QC team has to re-check during a cold-check?

The QA/QC team will validate the household size, dates of the interview, area identification of HH and community survey, annual income of the HH, land size, name of tree and forest products collection, ownership of tree and forest products, number of HH members employed in tree and forests related activities (if any), tree and forest energy, support from Bangladesh forest department. If the selected variables are found greater inconsistencies compared to the collected by the field enumerator, then QA/QC team findings will be considered as correct answer or asked field enumerator to re-interview the households. Apart from these, QA/QC team will ask random variables from HH. The QA/QC team should try to ensure to perform cold checks same person interviewed by the enumerators.

At least 2% of the HHs are cold checked.

Cold-*check* check list and reporting

The cold-check process requires the data collected by the QA/QC team to be checked against the data collected by the field team. The QA/QC team completes the check with a copy of the field team's data in hand so they can directly cross check the results. Through this process, all the errors that have been identified by the QA/QC team have to be entered into the **cold-check check list (Appendix-2)**.

Based on the information contained in the cold check list, the QA/QC team prepares a **cold-check report** which will contain summary of the inspections, including a list of all relevant errors that has been found, and all other comments and follow-up actions. The report will be submitted to the field team for discussion and to the BFI unit. The QA/QC team is responsible for preparing cold-check check list and report.

3.3.3 FREQUENT TRANSFER OF FIELD DATA TO A CENTRAL LOCATING FOR BACK UP

Objective: To prevent loss of data due to lost or damaged tablets or corrupted digital files, or due to lost field forms.

Definition: The data need to be transferred within 3-5 days to the BFI unit after the completion of each household. This will help prevent loss of data for any unavoidable reasons, avoid re-interview of household and enable central staff to check the correctness of data on a regular basis.

3.4 AFTER THE FIELD WORK: CHECK FOR ERRORS IN THE OFFICE

Objective: Despite all cautions it is likely that there might be some unexpected values in the field form recorded by the field enumerators. Such errors should be checked in the office to maintain quality of data.

Definition: In the office, the BFI unit undertakes several data check to identify unexpected values (e.g., unreasonably large values of income, tree and forest products codes). These checks can be done using statistical software, such as R. The research officers, foresters currently working in the BFI Unit will be assigned to check and report such errors. The checks will be done after receiving the digital data from the survey team members. They will prepare report regarding the inconsistencies data or values and will inform the BFI socio-economic team or survey team for re-interviewed of the HHs as well as compare with paper based questionnaire.

3.5 TRANSFER OF ALL DATA, EITHER BEFORE OR AFTER ERROR-CHECKING, TO A CENTRAL DATABASE

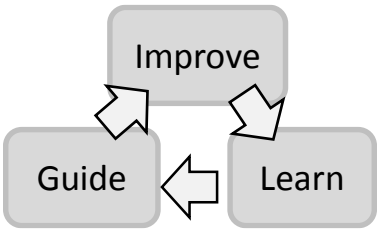
Objective: All data should be transferred to a central database after QC and error-checking for further use.

Definition: Data received from QA/QC team in the field and checked for error in the office should be stored in a central data base. This data can be used for further analysis and interpretation.

3.6 DOCUMENTATION

All necessary documentation regarding QA/QC has to be archived in the RIMS and BFI units of the Forest Department in order to ensure improvement of future training. Documentation should "include any of the physical records, such as the QA/QC plan, checklists, notes, calculation sheets, and reports that were utilized to conduct and document the QA/QC activity" (IPCC 2003).

4 IMPROVEMENT PLAN



Objective: Identification of the necessary actions to improve the next national socioeconomic surveys in forestry

Definition: To improve the quality of next socioeconomic survey actions need to be taken. These may include improvement of sample design, prioritization of both socioeconomic and biophysical variables to meet the stakeholders' requirement, and, regarding the QA/QC, implementation strategies for data collection, data collection process, identification of sources of errors and aptitude of data collector.

The improvement plan will be developed by the BFI unit that aims to facilitate continual improvement of the socio-economic component of Bangladesh Forest Inventory based on practical experiences on current socio-economic survey. It helps priorities improvement activities related to survey design, indicators and variables adhere to national priorities and the internationally accepted principles. Documentation of improvements needed could guide the BFI unit to improve the quality of the socio-economic component of national forest inventory for the next cycle. The improvements areas will mainly center around three issues: identifying source of errors, implementation modalities and coordination between institutions especially for data collection, and building and sustaining capacity.

5 CONCLUSION

The process of collecting a large amount of data from thousands of households across the country is not a trivial exercise. The sources of errors in this type of surveys are multiple, ranging from simple transcription errors during the data entry, to possible misinterpretation of the field protocol by the enumerators. To ensure the data are as far as possible correct, specific procedures should be put in place before, during and after the field work and a dedicated team should be created to supervise and coordinate the entire process. It is fundamental that all the quality control checks are duly documented, consistent and transparent, and that the results of the checks are always shared and discussed with the field teams and used to improve the data collection protocol.

An accurate analysis of the country socioeconomic dynamics is achievable only if data of good quality are collected in the field. The steps described in this manual will contribute to improve transparency, consistency, comparability, completeness, and confidence of the socio-economic survey of the Bangladesh Forest inventory.

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7 APPENDIX

APPENDIX 1: HOT CHECK SHEET

The hot check sheet is a one-page word file which the QAQC team will use to report the performance of the team during real time survey. The QAQC team will use this hot check sheet in the field and use **(√)** mark for following the right procedure for data collection of the selected variables by the field enumerators and use **(x)** mark for wrong procedure in data collection. Besides the QAQC team will take lead when they observe that the field enumerators approach in a wrong way while throwing a question which may distort the actual meaning of it and leads to distortion of the information. In addition, they will check all attributes in the questionnaire in the tab after completion of the interview.

SL #	Enumerator activity	QA/QC observation		Remarks
		Tick (√) mark	Cross (x) mark	
1	Interview process			
2	Identifying HH location using GPS			
3	Identifying land cover class from where forest products are collected by using maps			
4	Homestead land size			
5	Conversion of unit tree and forest products collected into the preferred one			
6	Ownership of land from where tree and forest product collection			
7	No. of HH members employed in tree and forest related activities			
8	Conversion of unit of wood energy consumed to the preferred one			
9	Support from BFD			
10	Income related to tree and forests			
11	Income from processed products			
12	Involvement in social forests and years of involvement			
13	Involvement in co-management activities			
14	Amount of water collected (Hill, Coastal, Sundarbans zone)			
15	Sources of HH drinking water (Hill, Coastal, Sundarbans zone)			
16	HH asset location (Coastal and Sundarbans zone)			

APPENDIX 2: COLD CHECK SCORE SHEET

OVERVIEW

The cold-check score sheet is an excel file in which the QA/QC team reports the number of errors that have been identified for each variable. The spreadsheet calculates a score to assess the quality of the work of the field-crew. The score sheet consists of ten spreadsheets (which approximately correspond to the sections of SE manual) as well as a spreadsheet of summary (Figure 3). All ten spreadsheets except summery must be filled by the QA/QC team. **The only cells that must be filled are those colored in yellow**. The other cells are auto calculated based on the values entered the yellow cells. Other cells must not be manually edited.

BASIC INFORMATION ABOUT THE INSPECTION

Information regarding the location of the plot, date of the inspection and names of field team members and of the QA/QC team members must be entered in the" SUMMARY" sheet.

SE Quality Assurance-Quality Control Scoring Summery 2017						
Spread Sheet	1	Scorring Summery				
HH record						
HH Unique Number						
Field Team			QAQC Team			
Field Team Inventory Date		/ /	QAQC Inventory Date			/ /
Start Time	..... :		Start Time			..... : .....
End Time	..... :		End Time			..... : .....
Enumerator Name			Coordinator Name			
Inspection Results						
Inspection Status	Satisfactory					
Worksheet	Acceptable or Satisfactory	Score	Satisfied	Unsatisfied	N/A	
Area	90	100	X			
Demography	90	100	X			
Biodiversity	90	100	X			
Disturbance_Deg_resilience	90	100	X			
Economics	90	100	X			
SFM	90	100	X			
Land Ownership	90	100	X			
Zone Specific	90	100	X			
Finalization	90	100	X			
Inspection Comments and Follow-Up Action						

Figure 3 The cold-check Score Sheet.

WHICH ERRORS HAVE TO BE REPORTED IN THE SCORE SHEET

Each variable has its own MQO, which is composed by a tolerance and a compliance standard (see section **Error! Reference source not found.**). The compliance standard is 70% for the biodiversity conservation r elated variables (such as plant and animal species not found abundantly), 80% for the income related variables (such as household monthly income, transportation cost, quantity of energy consumption etc.), 90% for the types of energy used for cooking, household member employed in tree and forest related institutions etc.) and 100% for all other variables. The tolerance differs for each variable and is reported in the SE manual. The QA/QC team must report only the errors that are beyond the MQOs mentioned section **Error! Reference source not found.**). Let's illustrate this concept with an example.

As mentioned in chapter **Error! Reference source not found.** *the tolerance for the variable Quantity of t ree and forest product collection is ± 20%, with a compliance standard of 80%. Let's assume that a HH collect 10 different forest products. According to the compliance standard information of at least 8 of these forest products (8 = 80*10/100) have to be measured correctly (within the tolerance range). That is, the maximum number of forest product that can be measured wrongly (i.e. beyond tolerance range) is 2. If 7 out of 10 forest products information have been measured wrongly, the number of error to be reported is 5 (7-2 = 5)*

REPORTING THE ERRORS

Lists of BFI variables are contained in the following spreadsheets:

- SUMMARY (1)
- AREA (2)
- Demography (3)
- Biodiversity (4)
- Disturbance_Deg_Resilience (5)
- Economics (6)
- SFM (7)
- Land Ownership (8)
- Zone specific Question (9)
- Finalization (10)

The spreadsheets 1 to 9 are to be filled by the QA/QC team. In these spreadsheets, the column "Section" contains the manual section that deals with that specific variable. The column called "Tolerance" refers to the tolerance threshold against which to determine the overall error, as defined in chapter **Error! R eference source not found.**. For certain variables, such as "HH unique Number" or "Respondent Name" no errors area tolerated meaning all entries are expected to be correct (Figure 4). The number of error encountered by the QA/QC team has to be entered in the column "# of Errors" (column "F").

SE Quality Assurance-Quality Control Scoring Summery 2017				
Spread Sheet	4	Biodiversity Information		
Score		100		
Status		Satisfactory		
Total Value		30		
Total Error		0		
Percent Error		0		
Data Item	Tolerance	Item Value	# of Errors	Item Error
Biodiversity & Conservation (83)				
Plant Species in the past (831)	No error	5		0
Plant Species not found abundantly (832)	+/-30%	5		0
Main reason of reduction in numbers (833)	+/-30%	5		0
Animal species in the past (834)	No error	5		0
Animal species not found abundantly (835)	+/-30%	5		0
Main reason of reduction in number (836)	+/-30%	5		0
Value		30		
Error				0

Figure 4. Spreadsheet 4: "Biodiversity" covers variables from Section 8.3 of the SE manual.

CALCULATING THE SCORE

The "Item Value" defines the coefficient of importance which is assigned to each error and is used to calculate the QC/QC score. More significant errors have a higher value (for example an error in the Sold collected tree and forest product (Item value = 10) is more significant than a mistake in the quantity of tree and forest product collected (Item value = 2).

The highest Item Value (which constitutes the most significant error) is the "Location of tree and forest product collection" section in the "Economics" tab (Figure 5), "HH location" and "GPS coordinates". Missing the location information and GPS coordinates (as well as adding a non-existing one) has impacts on identifying the resource distribution and therefore has the highest "item value"of 15.

SE Quality Assurance-Quality Control Scoring Summery 2017				
Spread Sheet	4	Economics related Information		
Score		100		
Status		Satisfactory		
Total Value		156		
Total Error		0		
Percent Error		0		
Data Item	Tolerance	Item Value	# of Errors	Item Error
Cost of selling Tree and forest product (8513)	+/-20%	2		0
Location of tree and forest production collection (8514)	No Error	15		0
Ownership of tree and forest products collection (8515)	No Error	2		0
Gender and age of HH member involved in collecting primary forest products (8516)	+/-10 %	4		0
Hunted species by HH (8517)	+/-30 %	2		0
Tree and forest products for Livelihood (8518)	+/-30 %	3		0
Production of Processed forest product (8519)	+/-20 %	2		0
Quantity of processed product sold (8520)	+/-15 %	2		0
HH member involved in processed products (8521)	+/-10 %	2		0
No of months involved in processed products (8522)	+/-10 %	2		0
Days spend for processing product (8523)	+/-10 %	2		0
Hours spend for processing tree and forest product (8524)	+/-10 %	2		0
Buying of raw material (8525)	No Error	10		0

Figure 5. Location specific information in the Spreadsheet 6 in the "Economics" tab.

All errors are multiplied by their respective “item values” and summed up for each section. The final score is the ratio of the sum of the errors, expressed in percentage. The score is automatically calculated and it is reported in each section beside the error section (Figure 6).

SE Quality Assurance-Quality Control Scoring Summery 2017		
Spread Sheet	4	Economics related Information
Score		100
Status		Satisfactory
Total Value		156
Total Error		0
Percent Error		0

Figure 6. Scores are auto-calculated in the section at the top of each tab. The status is satisfactory when the score is greater than 89%.

If the score is less than 89% the work is considered unsatisfactory. This information is reported for each section in the field “Status” (Figure 6).

THE INSPECTION SUMMARY

The calculated scores are summarized in the SUMMARY tab shown in Figure 7 which also provides an **overall cold-check score in the Inspection Status cell.** This score is calculated based of the score of each single section (the overall inspection is satisfactory only when all sections are satisfactory.

SE Quality Assurance-Quality Control Scoring Summery 2017						
Spread Sheet	1		Scorring Summery			
HH record						
HH Unique Number						
Field Team			QAQC Team			
Field Team Inventory Date		/ /	QAQC Inventory Date			/ /
Start Time	..... :		Start Time			..... : .....
End Time	..... :		End Time			..... : .....
Enumerator Name			Coordinator Name			
Inspection Results						
Inspection Status	Satisfactory					
Worksheet	Acceptable or Satisfactory	Score	Satisfied	Unsatisfied	N/A	
Area	90	100	X			
Demography	90	100	X			
Biodiversity	90	100	X			
Disturbance_Deg_resilience	90	100	X			
Economics	90	100	X			
SFM	90	100	X			
Land Ownership	90	100	X			
Zone Specific	90	100	X			
Finalization	90	100	X			
Inspection Comments and Follow-Up Action						

Figure 7. inspection summary table in spreadsheet 1.

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